



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.            | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------|-------------|----------------------|---------------------|------------------|
| 10/099,896                 | 03/14/2002  | Michael Meier        | 10559-771001/P13941 | 5382             |
| 20985                      | 7590        | 08/23/2006           | EXAMINER            |                  |
| FISH & RICHARDSON, PC      |             |                      | HARPER, KEVIN C     |                  |
| P.O. BOX 1022              |             |                      | ART UNIT            |                  |
| MINNEAPOLIS, MN 55440-1022 |             |                      | PAPER NUMBER        |                  |
|                            |             |                      | 2616                |                  |
| DATE MAILED: 08/23/2006    |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

4

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/099,896 | <b>Applicant(s)</b><br>MEIER ET AL. |  |
|                              | <b>Examiner</b><br>Kevin C. Harper   | <b>Art Unit</b><br>2616             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments filed June 13, 2006 have been fully considered but they are not persuasive.

1. Applicant argued that Epps does not disclose an external programmable device.

However, the FIFO buffer and the processing circuits (fig. 3, item 320 and fig 4, items 410-460) are external to the byte counter (fig. 3, item 310; col. 14, lines 63-65; col. 25, lines 55-56) and are programmable (col. 6, lines 53-60; col. 8, lines 20-24; col. 10, lines 45-50, col. 11, lines 1-3, col. 23, lines 40-46).

2. Applicant argued that Epps does not disclose adjusting a time for storing payload data.

However, a payload is held until the proper time when a header has gone through processing and is ready to be recombined (col. 15, lines 12-27).

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-9 and 11-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Epps et al. (US 6,721,316).

3. Regarding claims 1, 8-9, 16, 20, 24, 28 and 31-32, Epps discloses a method of extracting overhead data from a frame (fig. 4, items 410-460; col. 9, lines 5-9; col. 11, lines 14-41), sending the extracted overhead data to an external programmable device (fig. 3, item 320; fig. 4, items 410-460), modifying the extracted overhead data of the frame in the programmable device (col. 11, lines 14-41), receiving the modified overhead data from the external programmable device (item 240; col. 10, lines 15-19) and inserting the modified overhead data into the frame (col. 10,

Art Unit: 2616

lines 15-19). Regarding claims 8, 16, 20 and 24, the method is performed in an apparatus (fig. 1) having logic circuits (col. 14, lines 65-66; col. 44, lines 30-35) and a processor (fig. 1, item 190). The apparatus (network device, fig. 1, item 130) is in a system comprising a source and destination of frames (fig. 1, items 113 and 114). Regarding claims 28, the method is embodied on a computer readable medium (col. 44, lines 35-40).

4. Regarding claims 2-3, 6-7, 11-15, 17-19, 21-23, 25-27, 29-30, 33 and 36-37, the payload is stored for an appropriate amount of adjustable processing time (fig. 4; col. 10, lines 15-19; col. 15, lines 12-27) in a FIFO (fig 3, items 320-330) until the modified header and payload are recombined.

5. Regarding claims 4 and 34, the apparatus is pipelined (fig. 2, items 215, 220 and 240; figs. 3-4).

6. Regarding claims 5 and 35, different packets are processed differently and appropriately (col. 10, lines 16-29).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 2616

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epps et al. (US 6,721,316) in view of Kean (US 5,528,176).

7. Epps discloses using ASICs (col. 25, lines 63-65). However Epps does not disclose FPGAs. Kean discloses using FPGAs (col. 1, lines 18-20). Therefore, it would have been obvious to one skilled in the art to have an FPGA in the invention of Epps in order to provide a flexible control device (col. 1, lines 22-25 and 39-45).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To, can be reached at 571-272-7629. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For

Art Unit: 2616

more information about the PAIR system, see [portal.uspto.gov](http://portal.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Kevin C. Harper', written in a cursive style.

Kevin C. Harper

August 18, 2006